

DEPARTMENT OF LABOR AND ECONOMIC GROWTH

DIRECTOR'S OFFICE

CONSTRUCTION SAFETY STANDARDS

Filed with the Secretary of State on

These rules take effect 14 days after filing with the Secretary of State

(By authority conferred on the director of the department of labor and economic growth by sections 19 and 21 of 1974 PA 154, and Executive Reorganization Order Nos. 1996-2 and 2003-18, MCL 408.1019, 408.1021, 445.2001, and 445.2011)

R 408.43201, R 408.43202, R 408.43203, R 408.43204, R 408.43205, R 408.43206, R 408.43208, and R 408.43209 of the Michigan Administrative Code are amended, and R 408.43204a, R 408.43212, R 408.43214, R 408.43216, and R 408.43220 are added; and R 408.43210 is rescinded as follows:

PART 32. AERIAL WORK PLATFORMS

GENERAL PROVISIONS

R 408.43201. Scope.

Rule 3201. (4) These rules apply to the construction, operation, maintenance, and inspection of aerial work platforms with either manual or powered mobility **as used in construction operations as defined by 1974 PA 154, MCL 408.1001 to MCL 408.1094.**

~~—(2) This part replaces the occupational safety and health administration safety and health regulations set forth in 29 C.F.R. 1910.67, which was adopted by reference in R 408.41001.~~

R 408.43202. Equipment covered.

Rule 3202. **(1)** These rules apply to equipment that has a primary function of elevating personnel, together with their tools and necessary materials, on a platform, which is mechanically positioned. The units covered are described by the following American national standards institute standards:

(a) ANSI standard A92.2 1990 **2002 edition**, "Vehicle-Mounted Elevating **and Rotating Aerial Devices,**" Work Platforms", which is adopted by reference in **R 408.43204a.** ~~these rules and which is available at a cost as of the time of adoption of these rules of \$68.00 from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado 80112, telephone number 1-800-854-7179, Website GLOBAL@IHS.COM. This standard is available for review at the Michigan Department of Consumer and Industry Services, Standards Division, State Secondary Complex, 7150 Harris Drive, Box 30643, Lansing, MI 48909. This standard applies to vehicle-mounted devices installed on commercial chassis and covers the following type of units (See figure 1):~~

- (i) Extensible boom aerial devices.
- (ii) Aerial ladders.
- (iii) Articulating boom aerial devices.
- (iv) Vertical towers.

(v) A combination of any of the equipment specified in paragraphs (i) to (iv) of this subdivision.

(b) ANSI standard A92.3 1990 **2006 edition**, "Manually Propelled Elevating **Aerial** Work Platforms", which is adopted by reference in **R 408.43204a.** ~~these rules and which is available at a cost as of the time of adoption of these rules of \$68.00.~~ This standard applies to work platforms which are manually propelled, which are vertically adjustable by manual or powered means, and which may be towed or manually moved horizontally on wheels or casters that are an integral part of the work platform base. (See figure 2).

(c) ANSI standard A92.5 **2006 edition**, 1992 "Boom-Supported Elevating Work Platforms", which is adopted by reference in **R 408.43204a.** ~~these rules and which is available at a cost as of the time of adoption of these rules of \$68.00.~~ This standard applies to all integral frame, boom-

supported elevating work platforms which telescope, articulate, rotate, or extend beyond the base dimensions. (See figure 3).

(d) ANSI standard A92.6 1999 **edition**, "Self-Propelled Elevating Work Platforms", which is adopted by reference in **R 408.43204a**, ~~these rules and which is available at a cost as of the time of adoption of these rules of \$68.00.~~ This standard applies to self-propelled vertically adjustable integral chassis work platforms. Such work platforms are power-operated with primary controls for all movement operated from the platform. (See figure 4).

(2) Equipment adapted to elevating personnel with a primary function other than elevating personnel, such as fork trucks or cranes, are not covered by these rules. Those types of equipment are provided for in construction safety standards Part 10. "Lifting and Digging Equipment," R 408.41001a to R 408.41099a and Part 13. "Mobile Equipment," R 408.101301.

Exception: If the above-adapted equipment is equipped with controls that can be operated from the platform, then the requirements of R 408.43205 to R 408.43216 shall apply.

R 408.43203. **Employer and employee responsibility.** ~~Equipment not covered.~~

Rule 3203. (1) **An employer shall do all of the following:** ~~Equipment that has a primary function other than elevating personnel, such as fork trucks, or cranes, which are adapted to elevating personnel, is not covered by these rules.~~

(a) Provide training to employees in the operations, hazards, safeguards and safe practices described in these rules by a qualified person.

(b) Ensure that employees do not engage in the activities to which these rules apply until such employees have received training.

(c) Maintain an aerial device in a condition free of known defects and hazards which could cause an injury.

(2) An employee shall do both of the following: ~~Also excluded from coverage of these rules is fire fighting equipment that is covered by the provisions of the publication entitled "American National Practices for the Maintenance, Care, Testing and Use of Fire Department Aerial Ladders and Elevating Platforms," ANSI/NFPA 1904-1975, which is, for the purpose of identifying equipment that is excluded from coverage of these rules, adopted by reference in these rules and which is available at a cost as of the time of adoption of these rules of \$11.50 from the American National Standards Institute, 11 West 42nd Street, New York, New York 10036, or from the Standards Division, Michigan Department of Consumer and Industry Services, Box 30643, Lansing, MI 48909.~~

(a) Operate an aerial device only after being trained in the operations, hazards, safeguards and safe practices required by these rules by a qualified person and authorized by the employer.

(b) Report known defects and hazards concerning an aerial device to the supervisor.

R 408.43204. Definitions.

Rule 3204. (1) "Aerial device" or "aerial work platform" means an entire device that is designed and manufactured to raise personnel to an elevated work position on a platform supported by scissors, masts, or booms.

(2) "Aerial ladder" means an aerial device that consists of a single- or multiple-section rung ladder.

(3) "Articulating boom" means an aerial device that has ~~two~~ 2 or more hinged boom sections.

(4) "Authorized person" means a person who is approved and assigned to perform specific types of duties by the employer and who is qualified to perform those duties because of his or her training or experience.

(5) "Commercial chassis" means a vehicle that is built for over-the-road (roadway) travel.

(6) "Exposed power line" means a power line that is not isolated or guarded.

(7) (6) "Extensible boom" means an aerial device, except for the aerial ladder-type, that has a telescopic boom.

(8) (7) "Insulated aerial device" means an aerial work platform that is designed with dielectric components to meet specific electrical insulating ratings.

(9) ~~(8)~~ "Mechanically positioned" means that the elevating assembly, whether a mechanical (cable or chain), hydraulic, pneumatic, electric or other powered mechanism, is used to raise or lower the platform.

(10) ~~(9)~~ "Platform" means the portion of an aerial work platform, such as a bucket, basket, stand, cage, or the equivalent, that is designed to be occupied by personnel.

(11) ~~(10)~~ **"Power Line" means a distribution or transmission electrical line.**

(12) "Qualified person" means a person who possesses a recognized degree, certificate, professional standing, or skill and who, by knowledge, training, and experience, has demonstrated the ability to deal with problems relating to the subject matter, the work, or the project.

(13) **"Qualified telecommunications employee" means an employee trained to work on communication lines in the proximity of energized power transmission and distribution lines.**

(14) **"Vehicle" means any carrier that is not manually propelled.**

(15) **"Vehicle-mounted elevating and rotating work platform" means an aerial device or aerial work platform.**

(16) ~~(14)~~ "Vertical tower" means an aerial device that is designed to operate vertically on a level surface.

R 408.43204a. Adoption of standards by reference; access to other MIOSHA rules.

Rule 3204a. (1) The standards specified in this rule, except for the standards specified in subrule (2) of this rule, are adopted by reference.

(a) The following ANSI standards are available from Global Engineering Documents, 15 Inverness Way East, Englewood, Colorado, 80112, USA, telephone number: 1-800-854-7179 or via the internet at web-site: <http://global.ihs.com>; at a cost, as of the time of adoption of these rules, as stated in this subrule:

(i) American National Standard Institute Standard ANSI A92.2, "Vehicle-Mounted Elevating and Rotating Aerial Devices," 2002 edition. Cost: \$68.00.

(ii) American National Standard Institute Standard ANSI A92.3, "Manually Propelled Elevating Aerial Platforms", 2006 edition. Cost: \$68.00.

(iii) American National Standard Institute Standard ANSI A92.5, "Boom-Supported Elevating Work Platforms", 2006 edition. Cost: \$68.00.

(iv) American National Standard Institute Standard ANSI A92.6, "Self-Propelled Elevating Work Platforms," 1999 edition. Cost \$68.00.

(b) The "Manual on Uniform Traffic Control Devices for Streets and Highways, Part 6: Temporary Traffic Control," 2005 Michigan/2003 Federal Edition is available at no cost from the Michigan Department of Transportation via the Internet at website: www.michigan.gov/mdot. The entire 2005 MMUTCD may be purchased from Michigan Technological University, Local Technical Assistance Program, Room 309 Dillman Building, 1400 Townsend Drive, Houghton, Michigan, 49931; (906) 487-2102; at a cost of \$135.00 as of the time of publication of these rules.

(c) The standards adopted in subrule 1(a) and (b) of this rule are also available for inspection at the Department of Labor and Economic Growth, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143.

(d) Copies of the standards adopted in subrule 1(a) and (b) of this rule may be obtained quickest from the publisher or may also be obtained from the Department of Labor and Economic Growth, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143, at the cost charged in subrule 1(a) and (b), of this rule, plus \$20 for shipping and handling.

(2) The following Michigan Occupational Safety and Health Standards are referenced in these rules. Up to 5 copies of these standards may be obtained at no charge from the Michigan Department of Labor and Economic Growth, MIOSHA Standards Section, 7150 Harris Drive, P.O. Box 30643, Lansing, Michigan, 48909-8143 or via the internet at web-site: www.michigan.gov/mioshastandards. For quantities greater than 5, the cost, as of the time of adoption of these rules, is 4 cents per page.

(a) Construction Safety Standard Part 6. Personal Protective Equipment R 408.40601 to R 408.40641.

(b) Construction Safety Standard Part 10. Lifting and Digging Equipment, R 408.41001a to R 408.41099a.

(c) Construction Safety Standard Part 13. Mobile Equipment, R 408.101301.

(d) Construction Safety Standard Part 22. Signals, Signs, Tags, and Barricades, R 408.42201 to R 408.42243.

(e) Construction Safety Standard Part 45. Fall Protection, R 408.44501 to R 408.44502.

(f) General Industry Safety Standard Part 7. Guards for Power Transmission, R 408.10701 to R 408.10765.

R 408.43205. Construction.

Rule 3205. (1) Aerial work platforms shall be designed, constructed, and tested so as to be in compliance with the requirements of the following applicable American national standards institute standards:

(a) ANSI standard A92.2 1990 **2002 edition**, "Vehicle-Mounted Elevating and Rotating Aerial Devices".

(b) ANSI standard A92.3 1990 **2006 edition**, "Manually Propelled Elevating **Aerial** Work Platforms".

(c) ANSI standard A92.5 1992 **2006 edition**, "Boom-Supported Elevating Work Platforms".

(d) ANSI standard A92.6 1999 **edition**, "Self-Propelled Elevating ~~And Rotating Aerial Devices~~ **Work Platforms.**"

These standards are adopted by reference in ~~R 408.43202.~~ **R 408.43204a.**

(2) Aerial work platforms shall not be field-modified for uses other than those intended by the manufacturer, unless the modification has been certified in writing by the manufacturer or by any other equivalent entity, such as a nationally recognized testing laboratory, to be in compliance with the applicable ANSI standard and this rule, and to be at least as safe as the equipment was before modification.

(3) Directional controls shall be in compliance with all of the following provisions:

(a) Be of the type that will automatically return to the off or neutral position when released.

(b) Be protected against inadvertent operation.

(c) Be clearly marked as to their intended function.

(d) An overriding control shall be provided in the platform which must be continuously activated for platform directional controls to be operational and which automatically returns to the off position when released.

(4) Aerial work platforms shall be equipped with emergency controls at ground level.

(5) Emergency ground level controls shall be clearly marked as to their intended function and be capable of overriding the platform controls.

(6) All of the following information shall be clearly marked in a permanent manner on each aerial work platform:-

(a) Special workings, cautions, or restrictions necessary for operation.

(b) Rated work load.

(c) A clear statement of whether or not the aerial work platform is electrically insulated.

(7) Rotating shafts, gears, and other moving parts that are exposed to contact shall be guarded, as prescribed in general industry **safety** standard Part 7. "Guards for Power Transmission," ~~being R 408.10701~~ **to R 408.10765.** ~~et seq. of the Michigan Administrative Code.~~

(8) Attachment points shall be provided for fall protection devices for personnel who occupy the platform on aerial work platforms described in ~~the provisions of~~ R 408.43202 (a) and (c). (See figures 1 and 3).

R 408.43206. Inspection; maintenance; ~~and~~ testing.

Rule 3206. An employer shall comply with all of the following requirements:

(a) Each aerial work platform shall be inspected, maintained, repaired, and kept in proper working condition in accordance with the manufacturer's or owner's operating or maintenance and repair manual or manuals.

(b) Any aerial work platform found not to be in a safe operating condition shall be removed from service until repaired. All repairs shall be made by an authorized person in accordance with the manufacturer's or owner's operating or maintenance and repair manual or manuals.

(c) If the aerial work platform is rated and used as an insulated aerial device, the electrical insulating components shall be tested for compliance with the rating of the aerial work platform in

accordance with ANSI standard A92.2 **2002 edition, 1990, Section 6, which was adopted in R 408.43204a.** Such testing shall comply with all of the following provisions:

- (i) The test shall be performed not less than annually.
- (ii) Written, dated, and signed test reports shall be made available by the employer for examination by a department of consumer and industry services representative.
- (iii) The insulated portion of an aerial device shall not be altered in any manner that might reduce its insulating value.
- (d) All danger, caution, and control markings and operational plates shall be legible and not obscured.

R 408.43208. Preoperational procedures.

Rule 3208. (1) **An operator shall inspect an aerial work platform for defects that would affect its safe operation and use before it is used on each work shift. The visual inspection shall consist of all of the following procedures:** ~~Before use on each work shift, an aerial work platform shall be given a visual inspection by the operator for defects that would affect its safe operation and use. The inspection shall consist of not less than both of the following procedures:~~

- (a) Visual inspection for all of the following:
 - (i) Cracked welds.
 - (ii) Bent or broken structural members.
 - (iii) Hydraulic or fuel leaks.
 - (iv) Damaged controls and cables.
 - (v) Loose wires.
 - (vi) Tire condition.
 - (vii) Fuel and hydraulic fluid levels.
 - (viii) Slippery conditions on the platform.
- (b) Operate all platform and ground controls to ensure that they perform their intended function.
- (2) Before the aerial work platform is used, and during use on the job site, the operator shall inspect for all of the following:
 - (a) Ditches.
 - (b) Drop-offs.
 - (c) Holes.
 - (d) Bumps and floor obstructions.
 - (e) Debris.
 - (f) Overhead obstructions.
 - (g) Power lines.
 - (h) Similar conditions to those specified in subdivisions (a) to (g) of this subrule. The area around the aerial work platform shall also be inspected to assure clearance for the platform and other parts of the unit.

(3) All unsafe items found as a result of the inspection of the aerial work platform or work area shall be corrected before further use of the aerial work platform.

(4) **The employer shall ensure before the commencement of operations near power lines and when the clearances cannot be maintained as specified in Tables 1-3, that the owner, owner representative, or utility are notified with all pertinent information about the job.** ~~When the clearances specified in R 408.43209(2) cannot be maintained, the owner of electrical lines or his or her authorized representative shall be notified and provided with all pertinent information before the commencement of operations near electrical lines.~~

(5) Any overhead wire shall be considered to be an energized line until the owner of the line, or his or her authorized representative states that it is de-energized., **or a utility representative assures one of the following:**

- (a) **The line is de-energized and has been visibly grounded.**
- (b) **The line is insulated for the system voltages and the task will not compromise the insulation of the conductor and/or cause an electrical hazard.**

R 408.43209. **Electrical hazards** Operating procedures.

Rule 3209. (1) **The employer shall ensure that an aerial work platform shall be operated so that the distances from energized power lines and equipment prescribed in Table 1 are maintained, except for the following:**

- (a) **As prescribed in subrule (2) of this rule addressing tree trimming.**

(b) As prescribed in subrule (3) of this rule addressing telecommunications.

(c) Where insulating barriers are not a part of or an attachment to the aerial device that has been erected to prevent physical contact with the lines. ~~The aerial work platform shall be used only in accordance with the manufacturer's or owner's operating instructions and safety rules.~~

(2) A qualified lineman or a qualified line clearance tree trimmer shall maintain distances as prescribed in Table 2 when performing work from an aerial work platform on or near an exposed power line unless any of the following conditions exist:

(a) The employee is insulated or guarded from the energized part by gloves or gloves and sleeves, as provided for and prescribed in Construction Safety Standard Part 6 "Personal Protective Equipment" and Construction Safety Standard Part 30 "Telecommunications".

(b) The employee is insulated, isolated, or guarded from any other conductive part

(c) The energized part is insulated from the employee. ~~The following clearances shall be maintained when operating aerial work platforms or other equipment under, over, by, or near energized electric power lines:~~

VOLTAGE	MINIMUM CLEARANCE
0 to 50 kV.	10 feet
More than 50 kV.	10 feet + .4 inch per kV.

(3) A qualified telecommunications employee shall maintain the distances prescribed in Table 3 when working from an aerial lift, unless the employee is insulated, isolated, or guarded from any other conductive part or the energized part is insulated from the employee. ~~The clearance requirements set forth in subrule (2) of this rule do not apply to the following situations:~~

~~—(a) Where work is performed from an insulated aerial device that is insulated for the work and the work is performed in accordance with the provisions of construction safety standards Part 16. "Power Transmission and Distribution", being R 408.41601 et seq. of the Michigan Administrative Code, and Part 30. "Telecommunications", being R 408.43001 et seq. of the Michigan Administrative Code.~~

~~—(b) Where the electric power transmission or distribution lines have been de-energized and visibly grounded at the point of work or where insulating barriers that are not a part of an attachment to the aerial work platform have been erected to prevent physical contact with the line.~~

~~—(c) Where work is being performed by 2 licensed journeypersons electricians on equipment up to .5kV.~~

(4) Employees shall use insulated bucket, gloves and sleeves that are rated at more than the voltage to be worked on or that with which they might come into contact, to comply with subrules (2) and (3) of this rule. ~~Two licensed journeypersons will be required for work within the minimum clearance on equipment over .5kV.~~

(5) The clearances, as prescribed in Tables 1-3, do not apply when the owner of the line or his or her authorized representative, or a utility representative assures that the conductor is insulated for the system voltages and the task will not compromise the insulation of the conductor and/or cause an electrical hazard. ~~Proximity warning devices may be used, but shall not be used instead of meeting the requirements contained in subrules (2) and (3) of this rule.~~

(6) Tables 1, 2, and 3 read as follows: ~~The manufacturer's rated load capacity shall not be exceeded. The employer shall ensure that the load and its distribution on the platform are in accordance with the manufacturer's specifications. The aerial work platform rated load capacity shall not be exceeded when loads are transferred to the platform at elevated heights.~~

Table 1
Minimum Clearance Distances for Equipment

Voltage	Clearance With Boom Raised	Clearance Boom Lowered and No Load in Transit
To 50 kV	10 feet	4 feet
Over 50 kV	10 feet + .4 inch per each 1 kV over 50 kV	10 feet
50 to 345 kV	--	10 feet
346 to 750 kV	--	15 feet

Table 2
**Minimum Working Distances for
Qualified Line-Clearance Tree Trimmers and Qualified Linemen**

Voltage Range Phase to Phase (kilovolts)	Minimum Working Distance
2.1 to 15.0	2 feet 0 inches (61 cm)
15.1 to 35.0	2 feet 4 inches (71 cm)
35.1 to 46.0	2 feet 6 inches (76 cm)
46.1 to 72.5	3 feet 0 inches (91 cm)
72.6 to 121.0	3 feet 4 inches (102 cm)
138.0 to 145.0	3 feet 6 inches (107 cm)
161.0 to 169.0	3 feet 8 inches (112 cm)
230.0 to 242.0	5 feet 0 inches (152 cm)
345.0 to 362.0	*7 feet 0 inches (213 cm)
550.0 to 552.0	*11 feet 0 inches (335 cm)
700.0 to 765.0	*15 feet 0 inches (457 cm)

***Note: For 345-362 kV., 500-552 kV., and 700-765 kV., the minimum working distance and the minimum clear hot stick distance may be reduced that such distances are not less than the shortest distance between the energized part and a grounded surface.**

Table 3
Minimum Approach Distances for
Qualified Telecommunications Employees

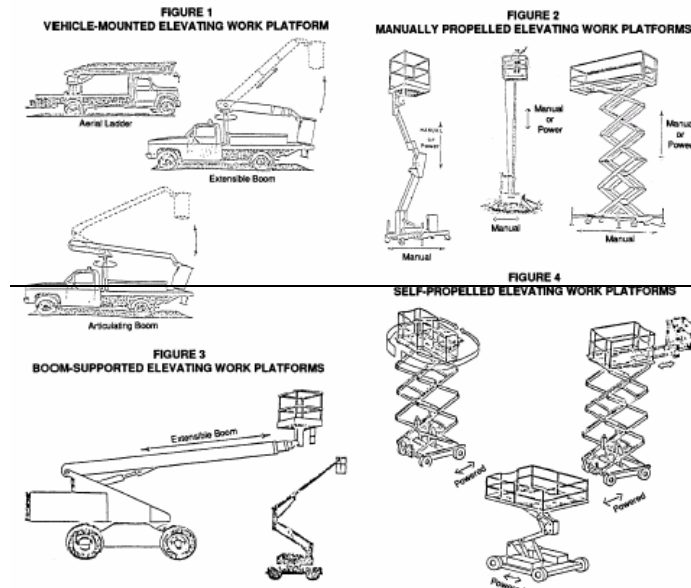
Voltage Range (Nominal Phase to Phase)	Minimum Approach Distances
300 V and less	1 foot - 0 inches (30.5 cm)
Over 300 V, not over 750 V	1 foot - 6 inches (46 cm)
Over 750 V, not over 2 kV	2 feet - 0 inches (61 cm)
Over 2 kV, not over 15 kV	3 feet - 0 inches (91 cm)
Over 15 kV, not over 37 kV	3 feet – 6 inches (107 cm)
Over 37 kV, not over 87.5 kV	4 feet – 0 inches (122 cm)
Over 87.5 kV, not over 121 kV	4 feet – 6 inches (137 cm)
Over 121 kV, not over 140 kV	–

- ~~–(7) Only personnel, their tools, and necessary materials shall be on or in the platform.~~
- ~~–(8) The guardrail system of the platform shall not be used to support any of the following:~~
 - ~~–(a) Materials.~~
 - ~~–(b) Other work platforms.~~
 - ~~–(c) Employees.~~
- ~~–(9) Personnel shall maintain firm footing on the platform while working on the platform. The use of railings, planks, ladders, or any other devices on the platform for achieving additional height is prohibited.~~
- ~~–(10) Fuel gas cylinders shall not be carried on platforms that would allow the accumulation of gases.~~
- ~~–(11) A safety harness that has a lanyard which is in compliance with construction safety standard Part 45. "Fall Protection", R 408.44501 to R 408.44502 and which is affixed to attachment points provided and approved by the manufacturer shall be provided by the employer and used by any occupant of an aerial work platform described in the provisions of R 408.43202(a) and (c) and figures 1 and 3. A fall arrest system shall only be used where the aerial lift is designed to withstand the vertical and lateral loads caused by an arrested fall.~~
- ~~–(12) A body belt may be used with a restraint device with the lanyard and the anchor arranged so that the employee is not exposed to any fall distance. A restraint device is required where the aerial lift cannot withstand the vertical and lateral loads imposed by an arrested fall.~~
- ~~–(13) Belting off to an adjacent pole, structure, or equipment while working from an aerial work platform is prohibited.~~
- ~~–(14) An employer shall not allow employees to exit an elevated aerial work platform, except where elevated work areas are inaccessible or hazardous to reach. Employees may exit the platform with the knowledge and consent of the employer. When employees exit to unguarded work areas, fall protection shall be provided and used as required in construction safety standard Part 45. "Fall Protection", being R 408.44501 to R 408.44502. et seq. of the Michigan Administrative Code.~~
- ~~–(15) Only aerial work platforms that are equipped with a manufacturer's installed platform controls for horizontal movement shall be moved while in the elevated position.~~
- ~~–(16) Before and during driving while elevated, an operator of a platform shall do both of the following:~~
 - ~~–(a) Look in the direction of, and keep a clear view of, the path of travel and make sure that the path is firm and level.~~
 - ~~–(b) Maintain a safe distance from all of the following:~~
 - ~~–(i) Obstacles.~~
 - ~~–(ii) Debris.~~
 - ~~–(iii) Drop-offs.~~

- ~~-(iv) Holes.~~
- ~~-(v) Depressions.~~
- ~~-(vi) Ramps.~~
- ~~-(vii) Overhead obstructions.~~
- ~~-(viii) Overhead electrical lines.~~
- ~~-(ix) Other hazards to safe elevated travel.~~
- ~~-(17) Outriggers or stabilizers, when provided, are to be used in accordance with the manufacturer's instruction. Outriggers and stabilizers shall be positioned on pads or a solid surface.~~
- ~~-(18) Aerial work platforms shall be elevated only when on a firm and level surface or within the slope limits allowed by the manufacturer's instructions.~~
- ~~-(19) A vehicle-mounted aerial work platform (figure 1) shall have its brakes set before elevating the platform.~~
- ~~-(20) A vehicle-mounted aerial work platform (figure 1) shall have wheel checks installed before using the unit on an incline.~~
- ~~-(21) Climbers shall not be worn while performing work from an aerial work platform.~~
- ~~-(22) Platform gates shall be closed while the platform is in an elevated position.~~
- ~~-(23) Stunt driving and horseplay are prohibited.~~
- ~~-(24) Altering, modifying, or disabling safety devices or interlocks is prohibited.~~
- ~~-(25) Care shall be taken by the employer to prevent ropes, cords, and hoses from becoming entangled in the aerial work platform.~~
- ~~-(26) A platform operator shall ensure that the area surrounding the aerial work platform is clear of personnel and equipment before lowering the platform.~~
- ~~-(27) Before and during travel, except as provided for horizontal movement in subrule (15) of this rule, an operator shall do all of the following:~~
 - ~~-(a) Inspect to see that booms, platforms, aerial ladders, or towers are properly cradled or secured.~~
 - ~~-(b) Ensure that outriggers are in a stored position.~~
 - ~~-(c) Limit travel speed according to the following factors:~~
 - ~~-(i) Condition of the surface.~~
 - ~~-(ii) Congestion.~~
 - ~~-(iii) Slope.~~
 - ~~-(iv) Location of personnel.~~
 - ~~-(v) Other hazards.~~
- ~~-(28) The aerial work platform shall not be positioned against another object to steady the platform.~~
- ~~-(29) The aerial work platform shall not be operated from a position on a truck, trailer, railway car, floating vessel, scaffold, or similar equipment.~~
- ~~-(30) The boom and platform of the aerial work platform shall not be used to move or jack the wheels off the ground unless the machine is designed for that purpose by the manufacturer.~~
- ~~-(31) If the platform or elevating assembly becomes caught, snagged, or otherwise prevented from normal motion by adjacent structures or other obstacles so that control reversal does not free the platform, all personnel shall be removed from the platform before attempts are made to free the platform.~~

R 408.43210. RESCINDED. Figures.

Rule 3210. Figures 1 to 4 are as follows:

**Rule 408.43212. Vehicles; traffic control.**

Rule 3212. (1) Before moving a vehicle supporting an aerial ladder for highway travel, employees shall secure ladders in the lower position and shall use the manually operated device at the base of the ladder, or other effective means to prevent elevation or rotation of the ladder.

(2) Before moving a vehicle supporting an aerial lift for travel, employees shall inspect the boom to ensure that it is properly cradled and the outriggers are in the stowed position, except as provided in subrule (3) of this rule.

(3) When a boom is elevated with employees in working position, the vehicle supporting an aerial device shall not be moved unless the equipment is specifically designed for this type of operation and meets the requirements of R 408.43205.

(4) Before and during travel, except as provided for horizontal movement in R 408.43216(9), an operator shall do all of the following:

(a) Inspect to see that booms, platforms, aerial ladders, or towers are properly cradled or secured.

(b) Ensure that outriggers are in a stored position.

(c) Limit travel speed according to the following factors:

(i) Condition of the surface.

(ii) Congestion.

(iii) Slope.

(iv) Location of personnel.

(v) Other hazards.

(5) An employer shall ensure that operators of an aerial work platform over or adjacent to any public or private roadway maintain adequate clearances of all portions of the aerial work platform to prevent being struck by vehicular traffic.

(6) When aerial work platforms are in use, all traffic control requirements shall be in compliance with Part 6 of the 2005 Michigan Manual on Uniform Traffic Control Devices (MMUTCD), which is adopted in R 408.43204a, and Construction Safety Part 22. Signals, Signs, Tags, and Barricades, R 408.42201 to R 408.42243.

Rule 408.43214. Fall protection.

Rule 3214. (1) The employer shall provide a safety harness that has a lanyard which is in compliance with construction safety standard Part 45. "Fall Protection", R 408.44501 to

R 408.44502 and which is affixed to attachment points provided and approved by the manufacturer. Any occupant of an aerial work platform described in the provisions of R 408.43202(a) and (c) and figures 1 and 3 shall use the harness. A fall arrest system shall only be used where the aerial lift is designed to withstand the vertical and lateral loads caused by an arrested fall.

(2) An employee may use a body belt with a restraint device with the lanyard and the anchor arranged so that the employee is not exposed to any fall distance. An employee shall use a restraint device where the aerial lift cannot withstand the vertical and lateral loads imposed by an arrested fall.

(3) An employee shall be prohibited from belting off to an adjacent pole, structure, or equipment while working from an aerial work platform.

(4) An employer shall not allow employees to exit an elevated aerial work platform, except where elevated work areas are inaccessible or hazardous to reach. Employees may exit the platform with the knowledge and consent of the employer. When employees exit to unguarded work areas, fall protection shall be provided and used as required in construction safety standard Part 45. "Fall Protection", R 408.44501 to R 408.44502.

(5) An employer shall provide for prompt rescue of employees in the event of a fall or shall ensure that employees are able to rescue themselves.

Rule 408.43216. Operating procedures.

Rule 3216 (1) The aerial work platform shall be used only in accordance with the manufacturers or owners operating instructions and safety rules.

(2) The designed rated capacity for a given angle of elevation shall not be exceeded.

(3) Proximity warning devices may be used, but shall not be used to avoid meeting the requirements of this rule.

(4) The manufacturer's rated load capacity shall not be exceeded. The employer shall ensure that the load and its distribution on the platform are in accordance with the manufacturer's specifications. The aerial work platform rated load capacity shall not be exceeded when loads are transferred to the platform at elevated heights.

(5) Only employees, their tools, and necessary materials shall be on or in the platform.

(6) The guardrail system of the platform shall not be used to support any of the following:

(a) Materials.

(b) Other work platforms.

(c) Employees.

(7) Employees shall maintain firm footing on the platform while working on the platform. The use of railings, planks, ladders, or any other devices on the platform for achieving additional height is prohibited.

(8) Fuel gas cylinders shall not be carried on platforms that would allow the accumulation of gases.

(9) Only aerial work platforms that are equipped with a manufacturer's installed platform controls for horizontal movement shall be moved while in the elevated position.

(10) Before and during driving while elevated, an operator of a platform shall do both of the following:

(a) Look in the direction of, and keep a clear view of, the path of travel and make sure that the path is firm and level.

(b) Maintain a safe distance from all of the following:

(i) Obstacles.

(ii) Debris.

(iii) Drop-offs.

(iv) Holes.

(v) Depressions.

(vi) Ramps.

(vii) Overhead obstructions.

(viii) Overhead electrical lines.

(ix) Other hazards to safe elevated travel.

(11) Outriggers or stabilizers, when provided, and are to be used in accordance with the manufacturer's instruction. Brakes shall be set and outriggers and stabilizers shall be positioned on pads or a solid surface.

(12) Aerial work platforms shall be elevated only when on a firm and level surface or within the slope limits allowed by the manufacturer's instructions.

(13) A vehicle-mounted aerial work platform (figure 1) shall have its brakes set before elevating the platform.

(14) A vehicle-mounted aerial work platform (figure 1) shall have wheel chocks installed before using the unit on an incline.

(15) Climbers shall not be worn while performing work from an aerial work platform.

(16) Platform gates shall be closed while the platform is in an elevated position.

(17) Altering, modifying, or disabling safety devices or interlocks is prohibited.

(18) Care shall be taken by the employer to prevent ropes, cords, and hoses from becoming entangled in the aerial work platform.

(19) A platform operator shall ensure that the area surrounding the aerial work platform is clear of personnel and equipment before lowering the platform.

(20) The aerial work platform shall not be positioned against another object to steady the platform.

(21) The aerial work platform shall not be operated from a position on a truck, trailer, railway car, floating vessel, scaffold, or similar equipment.

(22) The boom and platform of the aerial work platform shall not be used to move or jack the wheels off the ground unless the machine is designed for that purpose by the manufacturer.

(23) If the platform or elevating assembly becomes caught, snagged, or otherwise prevented from normal motion by adjacent structures or other obstacles so that control reversal does not free the platform, all employees shall exit from the platform before attempts are made to free the platform.

(24) Stunt driving and horseplay are prohibited.

R 408.43220. Figures.

Rule 3220. Figures 1 to 4 are as follows:

